



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
CINCINNATI, OHIO 45268

December 9, 2012

Jim Worley – Owner  
2391 East River Road  
Moraine, Ohio 45439

Occupant  
2391 East River Road  
Moraine, Ohio 45439

Dear Mr. Worley:

Re: Summary of U.S. EPA Sampling Results  
South Dayton Dump and Landfill Site – 2391 East River Road – Building 34

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The United States Environmental Protection Agency (U.S. EPA) prepared this letter to inform you of the results of the sub-slab (space under your building floor) sampling collected from your property in August 2012. The sub-slab sample was collected as part of the vapor intrusion (VI) investigation at the South Dayton Dump and Landfill (SDDL) Site.

U.S. EPA's technical consultant, WESTON Solutions, collected the sub-slab sample from a sub-slab probe previously installed by Conestoga-Rovers & Associates (CRA). A map identifying the sample location within your property can be found in **Attachment A**.

VI is the migration of volatile chemicals from the subsurface into overlying buildings. VI is a potential concern at any building, existing or planned, located near soil, groundwater, or soil vapor containing solvent- or petroleum-related compounds that may volatilize or chemicals that are combustible.

The sample was collected by WESTON Solutions and submitted to Air Toxics Ltd. WESTON Solutions received and validated the results of the laboratory analysis. A copy of the validated results can be found in **Attachment B**.

The ODH has recommended the screening levels for sub-slab samples. The screening levels represent concentrations of a substance that are unlikely to cause harmful (adverse) health effects in exposed people. A summary of the analytical results can be found in Table 1. The sub-slab air sample is measured in units called parts per billion by volume (ppbv).

**TABLE 1**  
**SUMMARY OF SAMPLING RESULTS**

Building / Probe	Sampling Date	Sample Type	Parameter	ODH Screening Level (ppbv)	Detected Concentration (ppbv)
Building 34 Probe A	8-1-12	Sub-slab	PCE	60	20

Notes:

PCE – Tetrachloroethene

***What do these results mean?***

In August 2012, PCE was documented in a sub-slab sample at a concentration of 20 ppbv, which is less than the ODH PCE sub-slab screening level of 60 ppbv. No other site-related chemicals or methane was observed greater than the screening levels established by ODH. Based on the laboratory results of the sub-slab air sample collected from your property, the U.S. EPA and ODH conclude that at this time, there is no evidence of a potential public health threat posed by vapor intrusion. At this time, no additional sampling will be required at your property. The U.S. EPA and ODH would like to take this opportunity to thank you for participating in this important investigation.

If you have health-related questions, please contact Dr. Bob Frey at the ODH at 614-466-1069. If you have questions related to the sampling or on-going site investigation, please visit our website at [www.epaosc.org/southdaytonedumpsite](http://www.epaosc.org/southdaytonedumpsite) or contact me at 513-569-7539.

Sincerely,



Steven L. Renninger  
On-Scene Coordinator  
U.S. EPA Region 5

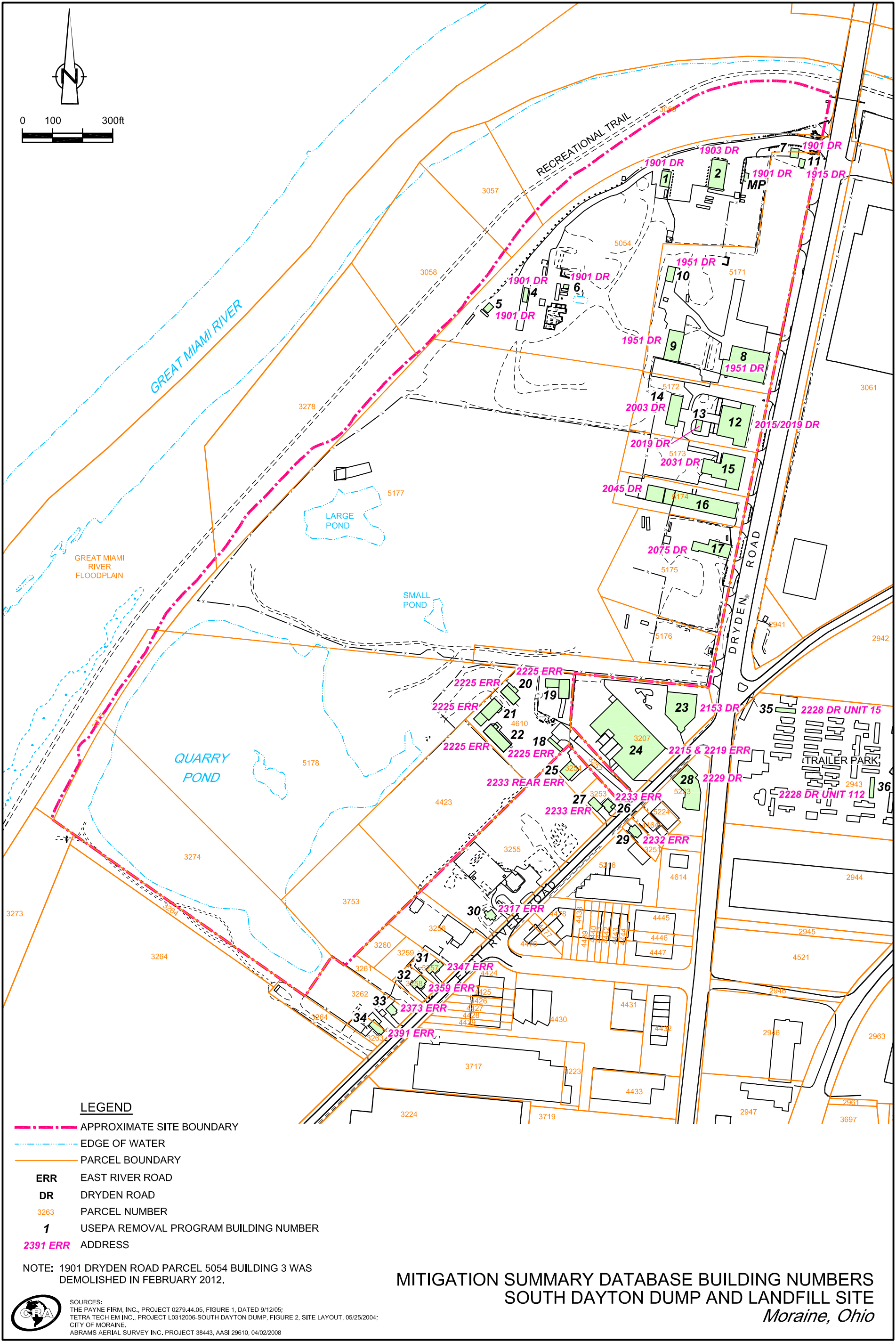
Attachments:

A – Sample Location Map

B – Validated Analytical Results

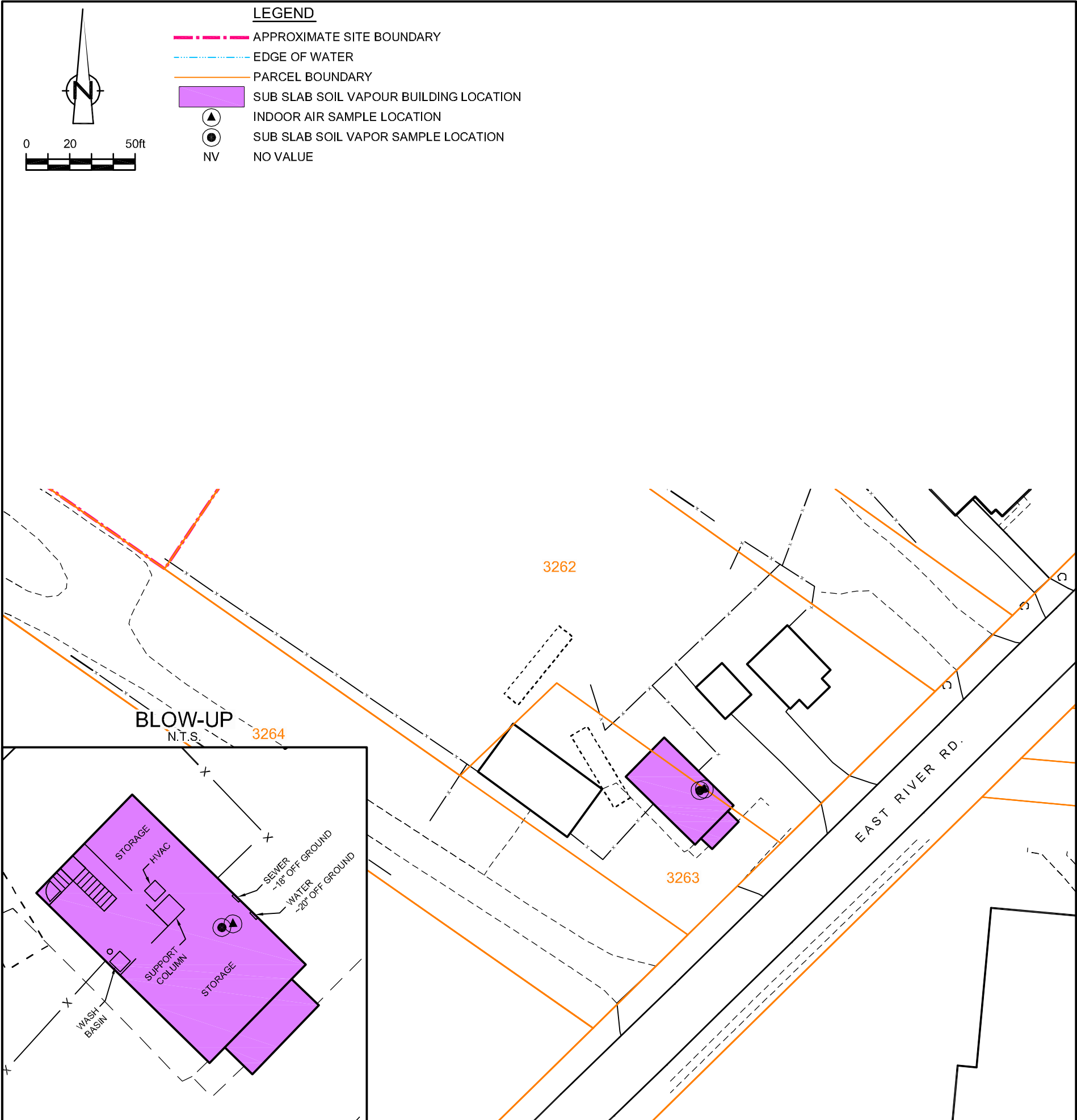
cc: Leslie Patterson - U.S. EPA Remedial Program Manager  
Laura Marshall - Ohio EPA, Site Coordinator  
Adam Loney, CRA  
Site File

**ATTACHMENT A**  
**SAMPLE LOCATION MAP**



MITIGATION SUMMARY DATABASE BUILDING NUMBERS  
SOUTH DAYTON DUMP AND LANDFILL SITE  
*Moraine, Ohio*

SOURCES:  
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;  
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;  
CITY OF MORaine,  
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008



**PROFILE VIEW**  
N.T.S.

**Building Characteristics:**  
Single-story, residential building. 590 sq. ft. building with unfinished basement. Building is constructed of poured concrete, foundation walls in poor condition. Building is insulated, not air tight. Visible evidence of leakage through basement walls or floor. Heating provided by natural gas furnace. Carpet and linoleum were installed within last six months on first floor, painting in basement and first floor occurred within past year. New carpet, mastic, caulk, etc. odors were observed. Latex caulk, linoleum tile, latex paint, cleaners, degreasers, disinfectants, solvents, and caulking are stored in the building. Exterior openings - utility pipe penetrations, wall openings, and windows.

PARCEL 3263, BUILDING 34  
2391 EAST RIVER ROAD  
SOUTH DAYTON DUMP AND LANDFILL SITE  
*Moraine, Ohio*



SOURCES:  
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;  
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;  
CITY OF MORAINES.  
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI29610, 04/02/2008

**ATTACHMENT B**  
**VALIDATED ANALYTICAL RESULTS**

**SOUTH DAYTON LANDFILL  
MORaine, MONTGOMERY COUNTY, OHIO  
DATA VALIDATION REPORT**

**Date:** August 15, 2012

**Laboratory:** Air Toxics Ltd. (Air Toxics), Folsom, California

**Laboratory Project #:** 1208065

**Data Validation Performed By:** Lisa Graczyk, Weston Solutions, Inc. (WESTON®) Superfund Technical Assessment and Response Team (START)

**Weston Analytical Work Order #/TDD #:** 20405.016.008.1869.00/S05-0008-1206-003

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for three air sample collected for the South Dayton Landfill Site that were analyzed for the following parameters and methods.

- Volatile Organic Compounds (VOC) by TO-15
- Methane by ASTM Method D-1946

A level II data package was requested from Air Toxics. The data validation was conducted in general accordance with the U.S. EPA "Contract Laboratory Program National Functional Guidance for Superfund Organic Methods Data Review" dated June 2008. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

**VOCs BY U.S. EPA METHOD TO-15**

**1. Samples**

The following table summarizes the samples for which this data validation is being conducted.

<b>Samples</b>	<b>Lab ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Analyzed</b>
2391RIVER-SS-080112	1208065A-01A	Air	8/1/2012	8/6/2012
2232RIVER-SS-080112	1208065A-02A	Air	8/1/2012	8/6/2012
2373RIVER-SS-080112	1208065A-03A	Air	8/1/2012	8/6/2012

**2. Holding Times**

The samples were analyzed within the required holding time limit of 30 days from sample collection.

**3. Blanks**

A method blank was analyzed with the VOC analysis and was free of target compound contamination above the reporting limit.

**4. Surrogate Results**

The surrogate recovery results were within the laboratory-established quality control (QC) limits.

**5. Continuing Calibration Results**

The continuing calibration results were within the QC limits for percent recovery.

**6. Laboratory Control Sample (LCS) Results**

The LCS and LCS duplicate (LCSD) recoveries were within laboratory QC limits except for as follows. In the LCS and LCSD, ethanol was detected low (below QC limit) and methy- tert butyl ether (MTBE) was detected slightly above the QC limit. Because MTBE was not detected in the samples, no qualifications were required. For ethanol, the quantitation limits were flagged "UJ" as estimated.

**7. Overall Assessment**

The VOC data are acceptable for use as qualified based on the information received.



## **METHANE BY ASTM D-1946**

### **1. Samples**

The following table summarizes the samples for which this data validation is being conducted.

<b>Samples</b>	<b>Lab ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Analyzed</b>
2391RIVER-SS-080112	1208065B-01A	Air	8/1/2012	8/8/2012
2232RIVER-SS-080112	1208065B-02A	Air	8/1/2012	8/8/2012
2373RIVER-SS-080112	1208065B-03A	Air	8/1/2012	8/8/2012

### **2. Holding Times**

The sample was analyzed within the required holding time limit of 30 days from sample collection.

### **3. Blanks**

A method blank was analyzed with the methane analyses and was free of target compound contamination above the reporting limit.

### **4. LCS Results**

The LCS and LCSD recoveries were within laboratory QC limits.

### **5. Overall Assessment**

The methane data are acceptable for use based on the information received.

Data Validation Report  
South Dayton Landfill Site  
Air Toxics Ltd.  
Laboratory Project #: 1208065

## **ATTACHMENT**

### **AIR TOXICS LTD. RESULTS SUMMARY**



# Air Toxics

Client Sample ID: 2391RIVER-SS-080112

Lab ID#: 1208065A-01A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p080611	Date of Collection: 8/1/12 10:57:00 AM
Dil. Factor:	1.79	Date of Analysis: 8/6/12 02:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.90	Not Detected	4.4	Not Detected
Freon 114	0.90	Not Detected	6.2	Not Detected
Chloromethane	9.0	Not Detected	18	Not Detected
Vinyl Chloride	0.90	Not Detected	2.3	Not Detected
1,3-Butadiene	0.90	Not Detected	2.0	Not Detected
Bromomethane	9.0	Not Detected	35	Not Detected
Chloroethane	3.6	Not Detected	9.4	Not Detected
Freon 11	0.90	Not Detected	5.0	Not Detected
Ethanol	3.6 <i>UT</i>	Not Detected	6.7 <i>UT</i>	Not Detected
Freon 113	0.90	Not Detected	6.8	Not Detected
1,1-Dichloroethene	0.90	Not Detected	3.5	Not Detected
Acetone	9.0	Not Detected	21	Not Detected
2-Propanol	3.6	Not Detected	8.8	Not Detected
Carbon Disulfide	3.6	Not Detected	11	Not Detected
3-Chloropropene	3.6	Not Detected	11	Not Detected
Methylene Chloride	9.0	Not Detected	31	Not Detected
Methyl tert-butyl ether	0.90	Not Detected	3.2	Not Detected
trans-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected
Hexane	0.90	Not Detected	3.2	Not Detected
1,1-Dichloroethane	0.90	Not Detected	3.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.6	Not Detected	10	Not Detected
cis-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected
Tetrahydrofuran	0.90	Not Detected	2.6	Not Detected
Chloroform	0.90	Not Detected	4.4	Not Detected
1,1,1-Trichloroethane	0.90	1.2	4.9	6.3
Cyclohexane	0.90	Not Detected	3.1	Not Detected
Carbon Tetrachloride	0.90	Not Detected	5.6	Not Detected
2,2,4-Trimethylpentane	0.90	Not Detected	4.2	Not Detected
Benzene	0.90	Not Detected	2.8	Not Detected
1,2-Dichloroethane	0.90	Not Detected	3.6	Not Detected
Heptane	0.90	Not Detected	3.7	Not Detected
Trichloroethene	0.90	Not Detected	4.8	Not Detected
1,2-Dichloropropane	0.90	Not Detected	4.1	Not Detected
1,4-Dioxane	3.6	Not Detected	13	Not Detected
Bromodichloromethane	0.90	Not Detected	6.0	Not Detected
cis-1,3-Dichloropropene	0.90	Not Detected	4.1	Not Detected
4-Methyl-2-pentanone	0.90	Not Detected	3.7	Not Detected
Toluene	0.90	Not Detected	3.4	Not Detected
trans-1,3-Dichloropropene	0.90	Not Detected	4.1	Not Detected
1,1,2-Trichloroethane	0.90	Not Detected	4.9	Not Detected
Tetrachloroethene	0.90	20	6.1	130
2-Hexanone	3.6	Not Detected	15	Not Detected

*LY 8/15/12*



## Air Toxics

Client Sample ID: 2391RIVER-SS-080112

Lab ID#: 1208065A-01A

### EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p080611	Date of Collection: 8/1/12 10:57:00 AM
Dil. Factor:	1.79	Date of Analysis: 8/6/12 02:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.90	Not Detected	7.6	Not Detected
1,2-Dibromoethane (EDB)	0.90	Not Detected	6.9	Not Detected
Chlorobenzene	0.90	Not Detected	4.1	Not Detected
Ethyl Benzene	0.90	Not Detected	3.9	Not Detected
m,p-Xylene	0.90	Not Detected	3.9	Not Detected
o-Xylene	0.90	Not Detected	3.9	Not Detected
Styrene	0.90	Not Detected	3.8	Not Detected
Bromoform	0.90	Not Detected	9.2	Not Detected
Cumene	0.90	Not Detected	4.4	Not Detected
1,1,2,2-Tetrachloroethane	0.90	Not Detected	6.1	Not Detected
Propylbenzene	0.90	Not Detected	4.4	Not Detected
4-Ethyltoluene	0.90	Not Detected	4.4	Not Detected
1,3,5-Trimethylbenzene	0.90	Not Detected	4.4	Not Detected
1,2,4-Trimethylbenzene	0.90	Not Detected	4.4	Not Detected
1,3-Dichlorobenzene	0.90	Not Detected	5.4	Not Detected
1,4-Dichlorobenzene	0.90	Not Detected	5.4	Not Detected
alpha-Chlorotoluene	0.90	Not Detected	4.6	Not Detected
1,2-Dichlorobenzene	0.90	Not Detected	5.4	Not Detected
1,2,4-Trichlorobenzene	3.6	Not Detected	26	Not Detected
Hexachlorobutadiene	3.6	Not Detected	38	Not Detected

#### Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	103	70-130

**Client Sample ID: 2391RIVER-SS-080112**

**Lab ID#: 1208065B-01A**

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

<b>File Name:</b>	<b>9080836</b>	<b>Date of Collection: 8/1/12 10:57:00 AM</b>
<b>Dil. Factor:</b>	<b>1.79</b>	<b>Date of Analysis: 8/8/12 09:28 PM</b>

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Methane	0.00018	Not Detected

**Container Type: 6 Liter Summa Canister**